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EXAMINER
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/756,918  
Filing Date: January 14, 2004  
Appellant(s): CHEN ET AL.

\_\_\_\_\_  
Brandon G. Williams (Reg. No. 48,844)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 04/16/2008 appealing from the Office action mailed 10/24/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments after Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the Brief is correct.

**(6) Ground of Rejection to be reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on Appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

1. Ito et al. "Character Input Apparatus/ Method and Computer- Readable Storage Medium", US Patent 6,694,056 B1, Feb 17, 2004.

2. Bryborn et al. "Electronic Pen and Method for Recording of Handwritten information", US-PGPUB 2003/0107558 A1, Jun 12, 2003.

3. Kannan et al. "System to Service Processor Interface for a Tablet Computer", US Patent 5,329,625, Jul 12, 1994.

4. Illan et al. "Handwritten Pattern Recognizer with Selective Feature Weighting", US Patent 6,023,529, Feb 8, 2000.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### **Claim Rejections - 35 USC § 101**

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The claimed invention is directed to non-statutory subject matter. Claims 9-15 are rejected. "A computer program product in recordable-type medium for performing handwriting recognition" must be "a computer readable medium encoded with a computer program for performing handwriting recognition" in order to be a statutory subject matter, so that the claimed subject is "a computer readable medium" instead of "a computer program". Applicant is urged to change the claimed language to meet the interim guideline.

That is, the scope of the presently claimed (a computer product in a recordable-type medium for performing handwriting recognition...) can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory.

Furthermore, as stated in the specification on Page 33, "the computer readable medium includes a transmission-type media which is a signal.

A signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Therefore, claims 9-15 are directed to non-statutory subject matter.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,3-4,6-11,14,16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 6,694,056) in view of Bryborn et al. (US-PGPUB 2003/0107558).

**(1) Regarding claim 1:**

Ito et al. disclose a method for performing handwritten character recognition (Fig.2, column 1, line 59-62), the method comprising the computer implemented steps (column 1, line 19-20) of:

responsive to user input (105 in Fig. 2) to a pointing device (204 in Fig. 2) entered through a computer interface (201 in Fig. 2, column 7, line 53-55), identifying a stroke start event and a stroke end event (column 2, line 23-24);

deriving a stroke parameter from the stroke start event and the stroke end event (column 2, line 26-27), (the obtaining of a stroke information is read as the same concept as the deriving of a stroke parameter).

Furthermore, Ito et al. disclose the method where the candidate character is based on the stroke parameter (see the Abstract).

Ito et al. do not explicitly mention the transmitting of the stroke parameter to a server concurrently with the user input of a subsequent stroke, and receiving a candidate character from the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where the server has a transceiver for transmitting and receiving the stroke parameter (paragraph [0047], lines 6-23, and paragraph [0058], line 2, and paragraph [0078], line 1-13), where the user inputs the subsequent stroke (paragraph [0048], line 8-10), (the selecting of the desired property for subsequent stroke by the user on the input page is read as the same concept as the inputting by the user of subsequent stroke).

(Bryborn et al. disclose that the transmission of the stroke parameter to a server could be initiated automatically, for example when a predetermined period of time has passed since a pen stroke was last input (paragraph [0078], line 7-10). Thus, the strokes are inputted for a predetermined period of time, and when this predetermined

period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs new subsequent strokes. Therefore, it eliminates characters from possible candidate characters entry before a user completes entry of the handwritten character.

Alternatively, as disclosed by Bryborn et al. when the memory in the pen has reached a certain degree of filling, it sends the request to the server via the wireless to transmit the strokes before the user completes the entry of the handwritten character (paragraph [0078], line10-13)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the server comprises a transceiver for transmitting and receiving a stroke information, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(2) Regarding claim 3:**

Ito et al. further discloses the method of handwritten character recognition system (Fig.2, column 1, line 59-62), where the step of identifying includes:

determining a first coordinate of pointing device icon (column 7, line 55), (the pointing device is read as stylus, and it is read that the coordinate input unit comprises a first coordinate) upon identifying the stroke start event (column 8, line 28), and determining a second coordinate of the pointing device icon (column 7, line

55), (the pointing device is read as stylus, and it is read that the coordinate input unit comprises a second coordinate) upon identifying the stroke end event (column 8, line 28).

**(3) Regarding claim 4:**

Ito et al. further discloses the method, where the deriving step (column 2, line 26-27) includes:

calculating a plurality of stroke parameters (column 2, line 32) from the stroke start event and the stroke end event (column 2, line 23-24).

**(4) Regarding claim 6:**

Ito et al. disclose all the subject matter as described in claim 1 above.

Ito et al. do not explicitly mention the method, where downloading a web page from the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where downloading a web page from the server (paragraph [0047], line 9), (it is read that the downloading a web page from the server is done via the wireless communication)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where downloading a web page from the server, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).



**(5) Regarding claim 7:**

Ito et al. disclose the receiving of a match confirmation input indicating the candidate character corresponds to a character being input to the computer interface (see the Abstract, and column 3, line 24-27).

Ito et al. do not explicitly mention the communicating of the match confirmation to the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where communicating of the match confirmation to the server (paragraph [0017], line 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where communicating of the match confirmation to the server, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(6) Regarding claim 8:**

Ito et al. disclose all the subject matter as described in claim 7 above.

Ito et al. do not explicitly mention the receiving of the candidate character from the server responsive to communicating the match confirmation to the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where communicating the match confirmation to the server (paragraph [0017], line 1-3), and receiving of the candidate character from

the server (paragraph [0047], line 20-22, and paragraph [0058], line 1-5), (it is interpreted that the transceiver communicates the match confirmation to the server, and receives the candidate character from the server).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where receiving of the candidate character from the server responsive to communicating the match confirmation to the server, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(7) Regarding claim 9:**

Ito et al. disclose a computer-readable storage medium programs (column 1, line 13-15) that have a computer execute the functions for each for performing a handwriting recognition (Fig.2, column 1, line 59-62) comprising:

first instruction for displaying a collection area in a computer interface (column 12, line 38-40; column 8, line 8-10; and column 9, line 1-3), (it is interpreted that the stroke information includes areas)

second instruction adapted to determine a start point and an end point of a stroke input into the collection area (column 2, line 23-24),

third instruction, responsive to determining the start point and the end point, for calculating a stroke parameter set describing at least one attribute of the stroke (column

2, line 23-24), (the attribute of the stroke is read as the stroke start event or the stroke end event).

Furthermore, Ito et al. disclose the method where the candidate character is based on the stroke parameter (see the Abstract).

Ito et al. do not explicitly mention the transmitting of the stroke parameter to a server concurrently with the user input of a subsequent stroke, and receiving a candidate character from the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where the server has a transceiver for transmitting and receiving the stroke parameter (paragraph [0047], line 21, and paragraph [0058], line 2), (it is read that the transceiver is transmitting and receiving the stroke information at the same time), where the user inputs the subsequent stroke (paragraph [0048], line 8-10), (the selecting of the desired property for subsequent stroke by the user on the input page is read as the same concept as the inputting by the user of subsequent stroke).

(Bryborn et al. disclose that the transmission of the stroke parameter to a server could be initiated automatically, for example when a predetermined period of time has passed since a pen stroke was last input (paragraph [0078], line 7-10). Thus, the strokes are inputted for a predetermined period of time, and when this predetermined period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs new subsequent strokes.

Therefore, it eliminates characters from possible candidate characters entry before a user completes entry of the handwritten character.

Alternatively, as disclosed by Bryborn et al. when the memory in the pen has reached a certain degree of filling, it sends the request to the server via the wireless to transmit the strokes before the user completes the entry of the handwritten character (paragraph [0078], line10-13)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the server comprises a transceiver for transmitting and receiving a stroke information, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(8) Regarding claim 10:**

Ito et al. further disclose the computer program (column 1, line 13-15), where the computer interface includes a candidate display for displaying the candidate character received by the fifth instruction (column 7, line 51-53), (it is read that the display screen is made up for displaying a recognized character, including candidate characters).

**(9) Regarding claim 11:**

Ito et al. further disclose the computer program (column 1, line 13-15), where the candidate character displayed in the candidate display (column 7, line 51-53) is selectable by a user (column 8, line 60-61).

**(10) Regarding claim 14:**

Ito et al. further disclose the computer program (column 1, line 13-15), where the first instruction, responsive to change trajectory of the stroke input into the collection area of at least a trajectory threshold (column 14, line 27), determine a partition point (column 8, line 30-34), and wherein the stroke parameter set comprises a first stroke parameter set calculated from the start point (column 8, line 37) and the partition point (column 8, line 30-34), and a second stroke parameter set calculated (column 21, line 4-5) from the partition point (column 8, line 30-34) and the end point (column 8, line 37), (the partition point is read as the area information, which is divided in horizontally and vertically to provide certain number of divided areas).

**(11) Regarding claim 16:**

Ito et al. disclose a data processing system (column 1, line 11-12), (the input apparatus is read as the same concept as the data processing system) comprising:

A pointing device (204 in Fig. 2, column 12, line 13);

a display (203 in Fig. 2, column 12, line 6);

a memory that contains a set of instructions (column 12, line 7), (the memory is read a storage medium);

a processing unit (109 in Fig. 1, column 11, line 64, and column 12, line 4), (the word detection unit is read as the same concept as the processing unit), responsive to execution of the set of instructions, for providing a computer interface that identifies a start point and an end point of a handwritten character stroke (column 19, line 47-48) input to the pointing device (204 in Fig. 2, column 12, line 13), where a first stroke parameter set is calculated (column 2, line 32) by the processing unit (column 11, line 64) responsive to identification of the start point and the end point (column 2, line 23-24).

Furthermore, Ito et al. disclose the system where the candidate character is based on the stroke parameter set (see the Abstract).

Ito et al. do not explicitly mention a server, responsive to calculating the first stroke parameter set, for receiving the first stroke parameter set from the processing unit concurrently with user input of a subsequent handwritten character stroke to the computer interface and transmitting a candidate character to the processing unit, wherein the candidate character is based on the first stroke parameter set.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where the server has a transceiver for transmitting and receiving the stroke parameter (paragraph [0047], line 21, and paragraph [0058], line 2), (it is read that the transceiver is transmitting and receiving the stroke information at the same time), where the user inputs the subsequent stroke (paragraph [0048], line 8-10), (the selecting of the desired property for subsequent stroke by the user on the

input page is read as the same concept as the inputting by the user of subsequent stroke).

(Bryborn et al. disclose that the transmission of the stroke parameter to a server could be initiated automatically, for example when a predetermined period of time has passed since a pen stroke was last input (paragraph [0078], line 7-10). Thus, the strokes are inputted for a predetermined period of time, and when this predetermined period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs new subsequent strokes. Therefore, it eliminates characters from possible candidate characters entry before a user completes entry of the handwritten character.

Alternatively, as disclosed by Bryborn et al. when the memory in the pen has reached a certain degree of filling, it sends the request to the server via the wireless to transmit the strokes before the user completes the entry of the handwritten character (paragraph [0078], line 10-13)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the server comprises a transceiver for transmitting and receiving a stroke information, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(12) Regarding claim 17:**

Ito et al. disclose all the subject matter as described in claim 16 above.

Ito et al. do not explicitly mention the system, comprising a network adapter for connecting the data processing system to a network computer.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, comprising a WAN interface (network adapter) for connecting the data processing system to the computer (Fig. 1, paragraph [0047], line 22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the system comprises a network adapter for connecting the data processing system to a network computer, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(13) Regarding claim 19:**

Ito et al. further disclose the data processing system (column 1, line 11-12), (the input apparatus is read as the same concept as the data processing system), where the processing unit (109 in Figure 1; column 12, line 4) responsive in change in trajectory of the pointing device (204 in figure 2) of at least a trajectory threshold (column 14, line 27), calculate a second stroke parameter set (column 21, line 4-5).



**(14) Regarding claim 20:**

Ito et al. further disclose the data processing system (column 1, line 11-12), (the input apparatus is read as the same concept as the data processing system), where the computer interface (column 1, line 20) includes a candidate display (203 in figure 2) for displaying a candidate character identified by comparing (see the Abstract, and column 12, line 16-18) the first stroke parameter set with a reference parameter set of reference character dictionary (column 12, line 16-18).

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al., as applied to claim 1 above, and further in view of Kannan et al. (US 5,329,625).

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 1 above.

Ito et al. and Bryborn et al. do not explicitly mention the method, where the stroke start event is a depression of a pointing device button, and the stroke end event is a release of the pointing device button.

Kannan et al., in analogous environment, teaches a system, comprising a pen or stylus used as the primary input device (column 1, line 43-45), (the primary input device is read as a pointing device). The pointing device includes a movable tip that closes the switch (column 2, line 65-67), (the movable tip that closes is read as pointing device button), the stylus generates a magnetic field that is picked up by the digitizer, so the digitizer can distinguish between “proximity” coordinate (switch open) (release of the

pointing point button) and “pen down” coordinate (switch closed) (depression of a pointing device button) (column 3, line 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kannan et al., where the stroke start event is a depression of a pointing device button, and the stroke end event is a release of the pointing device button, in the system of Ito et al. in order to make the handwriting recognition faster while permitting digitization to be done rapidly and in an efficient manner (column 1, line 57-59).

9. Claims 5,12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al., as applied to claims 1,9 and 16 above, and further in view of Illan et al. (US 6,023,529).

**(1) Regarding claim 5:**

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 1 above.

Ito et al. and Bryborn et al. do not explicitly mention the method, where the deriving step includes the calculating of at least one stroke length, a stroke angle, and a stroke center for the stroke parameter.

Illan et al., in analogous environment, teaches a handwritten pattern recognition, where calculating the stroke parameter length (column 1, line 67), and a stroke angle (column 3, line 62-63), and a stroke center for the stroke parameter (column 6, line 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Illan et al., where calculating at least one stroke length, a stroke angle, and a stroke center for the stroke parameter, in the system of Ito et al. in order to provide a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

**(2) Regarding claim 12:**

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 9 above.

Ito et al. and Bryborn et al. do not explicitly mention the computer program, where the stroke parameter set includes a length parameter, an angle parameter, and a center parameter.

Illan et al., in analogous environment, teaches handwritten pattern recognition, where the first stroke parameter set includes a length parameter (column 1, line 67), an angle parameter (column 3, line 62-63), and a center parameter (column 6, line 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Illan et al., where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter, in the system of Ito et al. in order to provide a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

**(3) Regarding claim 18:**

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 16 above.

Ito et al. and Bryborn et al. do not explicitly mention the system, where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter.

Illan et al., in analogous environment, teaches handwritten pattern recognition, where the first stroke parameter set includes a length parameter (column 1, line 67), an angle parameter (column 3, line 62-63), and a center parameter (column 6, line 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Illan et al., where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter, in the system of Ito et al. in order to provide a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

**(10) Response to Argument**

**(A) The following discussion relates to the Ground of rejection 1 (Claims 9-15) under 35 U.S.C § 101.**

1. Appellant's Argument----The Appellant argues (Page 9-11 of the Appeal Brief) that the rejection is incorrect in view of new guidelines covering patentability of claims directed to a process in a computer medium. The USPTO guidelines for evaluating

computer-readable medium encoded with functional descriptive material, such as a computer program, expressly state that a claim to such computer-readable medium when so encoded is statutory subject matter. USPT, *Interim Guideline for Examination of Patent Application for Patent Subject Matter Eligibility* (26 Oct. 2005) (hereinafter "The Guideline")

Examiner's Response----The Examiner respectfully disagrees with the Appellant's Argument due to the following reasons:

1.1- The MPEP 2106.01 (I), the Guideline provides, in relevant parts"

"... Similarly, computer programs claimed as computer listing per se, i.e., the descriptions or expression of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F. 3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions.

In the instant case, claims 9-15 recite:" A computer program product in a recordable-type medium for performing handwritten recognition". The claim language is directed to non-statutory subject matter.

Claims 9-15 define a (a computer product in a recordable-type medium for performing handwriting recognition...) embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and thus non-statutory for that reason (i.e., "when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to

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the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized"- Guideline Annex IV). That is, the scope of the presently claimed (a computer product in a recordable-type medium for performing handwriting recognition...) can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

1.2- The specification on Page 33 states:

"It is important to note that while the present invention has been described in the context of a fully functioning data processing system, those of ordinary skill in the art will appreciate that the processes of the present invention are capable of being distributed in the form of a computer readable medium of instructions and a variety of forms and that the present invention applies equally regardless of the particular type of signal bearing media actually used to carry out the distribution. Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and transmission-type media, such as digital and analog communications links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions. The computer readable media may take the form of coded formats that are decoded for actual use in a particular data processing system."

As stated above, the computer readable media which include recordable-type media is defined as:

- a computer readable media that include recordable-type media such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs which is statutory subject matter; and
- **Transmission-type media**, such as digital and analog communications links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions, which represent a **signal**, which is not statutory subject matter.

The USPTO "Interim Guideline for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in SEC. 101.

...a signal does not fall within one of the four statutory classes of Sec. 101.

...signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Therefore, claims 9-15 define (a computer program product in a recordable-type medium for performing handwritten recognition ...) with descriptive material. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a signal embodying that same functional descriptive material is neither a process nor a product

(i.e., a tangible “thing”) and therefore does not fall within one of four statutory classes of § 101. Rather, “signal” is a form of energy, in the absence of any physical structure or tangible material.

In order for claims 9-15 to be statutory subject matter, claims 9-15 should be changed as the following: “a computer program product in a **recordable-type computer readable medium** for performing handwriting recognition....” to include only the computer readable media that include recordable-type media such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs which is statutory subject matter.

Therefore, claims 9-15 are still not in condition for allowance.

**(B) The following discussion relates to the Ground of rejection 2 (Claims 1, 3-4, 6-11, 14, 16-17, and 19-20)**

1. Appellant’s Argument----The Appellant argues (Page 11-15 of the Appeal Brief) that neither Ito nor Bryborn teach or suggest the feature of, “transmitting the stroke parameter to a server concurrently with user input of a subsequent stroke,” the examiner has failed to state a prima facie obviousness rejection against claim 1 in view of combination of Ito and Bryborn considered as a whole. Therefore, the rejection of claim 1 under 35 U.S.C § 103 is improper.

Examiner’s Response----The Examiner respectfully disagrees with the Appellant’s Argument due to the following reasons:



1.1- As shown in Fig. 5, Bryborn clearly shows the transmitting of the stroke information to server.

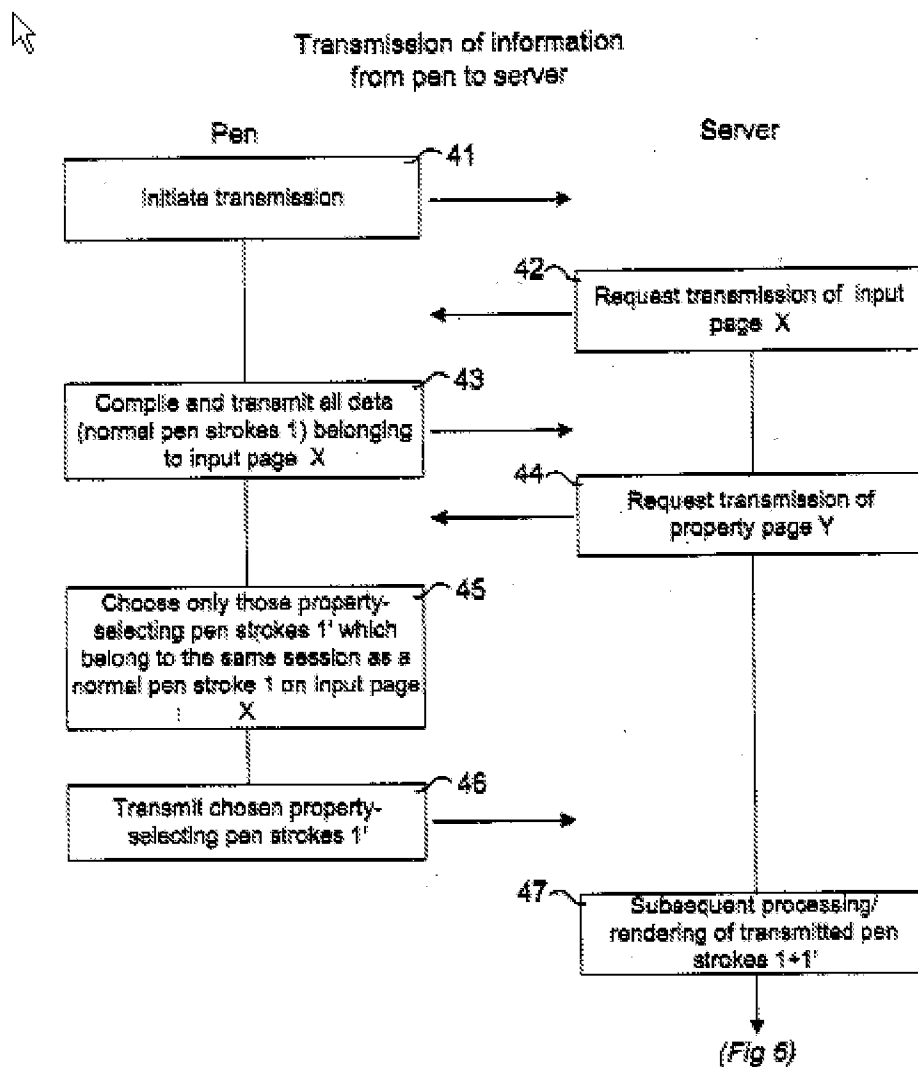


Fig 5

Regarding the limitation: "...concurrently with user input of a subsequent stroke, Bryborn et al. clearly disclose that the transmission of the stroke parameter to a server could be initiated automatically, for example when a predetermined period of time has passed since a pen stroke was last input (paragraph [0078], line 7-10). Thus, the strokes are inputted for a predetermined period of time, and when this predetermined period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs new subsequent strokes. Therefore, it eliminates characters from possible candidate characters entry before a user completes entry of the handwritten character.

Alternatively, as disclosed by Bryborn et al. when the memory in the pen has reached a certain degree of filling, it sends the request to the server via the wireless to transmit the strokes before the user completes the entry of the handwritten character (paragraph [0078], line 10-13).

2.2- In response to the Applicant's arguments, that the Examiner has failed to state a prima facie obviousness rejection against claim 1 in view of a combination of Ito and Bryborn considered as the whole, the Examiner would like to point out the following precision:

Ito et al. disclose a method for performing handwritten character recognition (Fig. 2, column 1, line 59-62), the method comprising the computer implemented steps (column 1, line 19-20) of:

responsive to user input (105 in Fig. 2) to a pointing device (204 in Fig. 2) entered through a computer interface (201 in Fig. 2, column 7, line 53-55), identifying a stroke start event and a stroke end event (column 2, line 23-24);

deriving a stroke parameter from the stroke start event and the stroke end event (column 2, line 26-27), (the obtaining of a stroke information is read as the same concept as the deriving of a stroke parameter).

Furthermore, Ito et al. disclose the method where the candidate character is based on the stroke parameter (see the Abstract).

Ito et al. do not explicitly mention the transmitting of the stroke parameter to a server concurrently with the user input of a subsequent stroke, and receiving a candidate character from the server.

Bryborn teaches the transmitting of a pen strokes from the pen to the server (see Fig. 5, paragraph [0078], line 1-2), where the strokes are inputted for a predetermined period of time, and when this predetermined period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs a subsequent stroke (see paragraph [0078], line 7-10); and receiving the stroke parameter (paragraph [0047], line 6-23). (The examiner interpreted that since the server has a transceiver, means it can receive and transmits of the pen strokes).

All the elements of claim 1 are known in Ito et al. and Bryborn references. The only difference is the combination of the transceiver, which transmits the pen strokes to a server concurrently with the user input of subsequent stroke, and receives the pen stroke from the server, with the method of handwritten character recognition.

In addition, the KSR, states: *"All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yield predictable results to one of ordinary skill in the art at the time of the invention"* (Adapted from Anderson's *Black Rock Inc. v. Pavement Salvage Co*)

Thus, it would have been obvious to one having ordinary skill in the art to use the transceiver as thought by Bryborn, where transmitting the pen strokes to a server concurrently with the user input of subsequent stroke, and receiving the pen stroke from the server, with the method of handwritten character recognition as shown by Ito et al., since the transceiver could be used in combination with the handwritten character recognition to achieve the predictable results of transferring all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

Therefore, claims 1, 3-4, 6-11, 14, 16-17, and 19-20 are still not in condition for allowance.

**(C) The following discussion relates to the Ground of rejection 3 (Claim 2)**

1. Appellant's Argument----The Appellant argues (Page 16-17 of the Appeal Brief) that none of Ito, Bryborn, or Kannan teaches or suggest the features "transmitting the stroke parameter to a server concurrently with user input of a subsequent stroke", the examiner has failed to state a prima facie obviousness rejection against claim 2 in view of a combination of Ito, Bryborn, and Kannan. Therefore, the rejection of claim 2 under 35 U.S.C § 103 is improper.

Examiner's Response----The Examiner respectfully disagrees with the applicant's allegation regarding claim 2. As mentioned above, Bryborn clearly mention the transmitting of the stroke parameter to the server (Fig. 5, paragraph [0078], line 1-2)

Furthermore, Bryborn et al. clearly disclose that the transmission of the stroke parameter to a server could be initiated automatically, for example when a predetermined period of time has passed since a pen stroke was last input (paragraph [0078], line 7-10). Thus, the strokes are inputted for a predetermined period of time, and when this predetermined period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs new subsequent strokes. Therefore, it eliminates characters from possible candidate characters entry before a user completes entry of the handwritten character.

Alternatively, as disclosed by Bryborn et al. when the memory in the pen has reached a certain degree of filling, it sends the request to the server via the wireless to transmit the strokes before the user completes the entry of the handwritten character (paragraph [0078], line10-13).

Regarding the combination of Ito, Bryborn, and Kannan; as mentioned above in (B), Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 1. To link the Ito et al. and Bryborn et al. references for an understandable rationale, the Examiner has introduced the prior art reference Kannan et al. (US 5,329,625). Kannan et al. teaches a pen stylus used as the primary input device (pointing device) (column 1, line 43-45), includes a movable tip that closes the switch (pointing device button) (column 2, line 65-67), the stylus generates a magnetic field that is picked up by the digitizer, so the digitizer can distinguish between "proximity" coordinate (switch open) (release of the pointing point button) and "pen down" coordinate (switch closed) (depression of a pointing device button) (column 3, line 1-7).

All the elements of claim 2 are disclosed in Ito et al., Bryborn et al., and Kannan references. The only difference is the combination of the start event and the end event which are respectively the depression of a pointing device button, and release of the pointing device button, with the method of handwritten character recognition.

In addition, the KSR, states: "*All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yield predictable results to one of ordinary skill in the art at the time of the invention*" (Adapted from Anderson's *Black Rock Inc. v. Pavement Salvage Co.*).

Thus, it would have been obvious to one having ordinary skill in the art to use the pen stylus as thought by Kannan which comprises the start event and the end event corresponding respectively to depression and release of the pointing device button, with the method of handwritten character recognition as shown by Ito et al., since the stroke start event and the stroke end event could be used in combination with the handwritten character recognition to achieve the predictable results of making the handwriting recognition faster while permitting digitization to be done rapidly and in an efficient manner (column 1, line 57-59).

Therefore, claim 3 is still not in condition for allowance.

**(D) The following discussion relates to the Ground of rejection 4 (Claims 5, 12, and 18).**

1. Appellant's Argument----The Appellant argues (Page 17-18 of the Appeal Brief) that none of Ito, Bryborn, or Illan teaches the features “transmitting the stroke parameter to a server concurrently with user input of a subsequent stroke”, the examiner has failed to state a prima facie obviousness rejection against claim 5 in view of the combination of Ito, Bryborn, and Illan. Therefore, the rejection of claims 5, 12, and 18 under 35 U.S.C § 103 is improper.

Examiner's Response----The Examiner respectfully disagrees with the applicant's allegation regarding claim 5. As mentioned above, Bryborn clearly mention the transmitting of the stroke parameter to the server (Fig. 5, paragraph [0078], line 1-2)

Furthermore, Bryborn et al. clearly disclose that the transmission of the stroke parameter to a server could be initiated automatically, for example when a predetermined period of time has passed since a pen stroke was last input (paragraph [0078], line 7-10). Thus, the strokes are inputted for a predetermined period of time, and when this predetermined period of time (a cycle time) will be ending, the inputted strokes will be automatically transmitted to the server, concurrently when the user inputs new subsequent strokes. Therefore, it eliminates characters from possible candidate characters entry before a user completes entry of the handwritten character.

Alternatively, as disclosed by Bryborn et al. when the memory in the pen has reached a certain degree of filling, it sends the request to the server via the wireless to transmit the strokes before the user completes the entry of the handwritten character (paragraph [0078], line 10-13).

Regarding the combination of Ito, Bryborn, and Illan, as mentioned above in (B), and (C), Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 1. To link the Ito et al. and Bryborn et al. references for an understandable rationale, the Examiner has introduced the prior art Illan et al. (US 6,023,529). Illan et al. teaches the calculating of the stroke parameter length (column 1, line 67), a stroke angle (column 3, line 62-63), and a stroke center for the stroke parameter (column 6, line 42-43).

All the elements of claim 5 are known in Ito, Bryborn, and Illan references. The only difference is the combination of the calculating of the stroke parameter length, a stroke angle, and a stroke center for the stroke parameter with the method of handwritten character recognition.



In addition, the KSR, states: *“All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yield predictable results to one of ordinary skill in the art at the time of the invention”* (Adapted from Anderson’s *Black Rock Inc. v. Pavement Salvage Co*)

Thus, it would have been obvious to one having ordinary skill in the art to use the calculating of the stroke parameter length, a stroke angle, and a stroke center for the stroke parameter as though by Illan et al. with the method of handwritten character recognition as shown by Ito et al., since the determination of the stroke parameter length, a stroke angle, and a stroke center for the stroke parameter could be used in combination with the handwritten character recognition to achieve the predictable results of providing a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

Therefore, claims 5, 12, and 18 are still not in condition for allowance.

Art Unit: 2624

**(11) Related Proceeding(s) Appendix:**

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of the Examiner answers.

For the above reason, it is believed that the rejection should be sustained.

Respectfully submitted,

/Amara Abdi/

Examiner, Art Unit 2624

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Werner Brian

/Brian P. Werner/

Supervisory Patent Examiner, Art Unit 2624

Jingge Wu

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